

CLAIMS

What is claimed is:

1. A vortex generator for a surface which generates a primary tip vortex, said vortex generator comprising:
a plurality of vorticity generating protuberances which generate small-scale vortices that are at least partially entrained within the primary tip vortex.
2. The vortex generator as recited in claim 1, wherein said surface comprises an aerodynamic surface.
3. The vortex generator as recited in claim 1, wherein said surface comprises a rotating aerodynamic surface.
4. The vortex generator as recited in claim 1, wherein said surface comprises a rotor blade.
5. The vortex generator as recited in claim 1, wherein said plurality of vorticity generating protuberances comprise deployable members.
6. The vortex generator as recited in claim 1, wherein said plurality of vorticity generating protuberances extend from a tip of the surface.

7. An aerodynamic member comprising:
an outboard section terminating in a tip which generates a primary tip vortex; and
a plurality of vorticity generating protuberances which extend from said tip, said
plurality of vorticity generating protuberances generate small-scale
vortices that are at least partially entrained within the primary tip
vortex.

8. The aerodynamic member as recited in claim 7, wherein said tip comprises
a distal end of rotor blade.

9. The aerodynamic member as recited in claim 7, wherein said tip comprises
a distal end of a wing.

10. The aerodynamic member as recited in claim 7, wherein said tip comprises
a distal end of a propeller.

11. A method of accelerating diffusion of a primary tip vortex comprising the step of:
 - (1) generating small-scale vortices that are at least partially entrained within the primary tip vortex to destabilize a core of said primary tip vortex.
12. A method as recited in claim 11, wherein said step (1) further comprises locating a plurality of vorticity generating protuberances on a tip of a rotating member which generates the primary tip vortex.
13. A method as recited in claim 11, wherein said step (1) further comprises locating a plurality of vorticity generating protuberances on a tip of a fixed member which generates the primary tip vortex.
14. A method as recited in claim 11, further comprising the step of:
selectively extending a from a tip which generates the primary tip vortex.